Appl. No. 10/015,959
Response Dated November 1, 2004
Reply to Office Action of July 1, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1.   (Currently Amended) A method to manage packet fragmentation for address translation, comprising:

receiving a plurality of packet fragments for a packet having a first address, wherein each packet fragment includes a packet fragment header having a packet offset value;

translating said first address into a second address without reassembling said packet fragments into said packet;

determining whether all packet fragments for said packet have been received using said offset value; and

sending said packet fragments using said second address.

2.   (Currently Amended) The method of claim 1, wherein said translating comprises:

identifying a said packet fragment having a said packet header, with said packet header having a packet identifier, translation information and a packet length;

determining whether all packet fragments for said packet have been received;

retrieving translation information from said packet header; and

translating said first address into said second address using said translation information.

3.   (Original) The method of claim 2, wherein said translation information comprises a port number.

4.   (Currently Amended) The method of claim 2, wherein each of said packet fragment includes a said packet fragment header having said packet identifier, and a more bit and an offset value, and said determining comprises:

storing each packet fragment having said packet identifier and said more bits set to predetermined values; and

determining whether all packet fragments fro said packet have been received using said offset values.

5.   (Currently Amended) The method of claim 4 1, wherein each offset value represents a position for said packet fragment in said packet, and said determining whether all packet fragments for said packet have been received using said offset values comprises:

collecting said offset values; retrieving said packet length; and

determining whether all positions for said packet are filled by said collected offset values using said packet length.

6.   (Original) The method of claim 2, wherein each packet fragment includes a

3

packet fragment header having said packet identifier, a more bit and an offset value, and said determining comprises:

storing each packet fragment having said packet identifier and said offset value is a value other than zero; and

determining whether all packet fragments for said packet have been received using said offset values.

7.　　(Original)　The method of claim 6, wherein each offset value represents a position for said packet fragment in said packet, and said determining whether all packet fragments for said packet have been received using said offset values comprises:

collecting said offset values;

retrieving said packet length; and

determining whether all positions are filled by said collected offset values using said packet length.

8.　　(Original)　The method of claim 5, wherein each offset value represents a position in bytes divided by eight for said packet fragment in said packet.

9.　　(Original)　The method of claim 7, wherein each offset value represents a position in bytes divided by eight for said packet fragment in said packet.

10.　　(Original)　The method of claim 1, further comprising: detecting an occurrence of a terminating condition prior to receiving all of said packet fragments for said packet; and

releasing said packet fragments in accordance with said detection.

11.   (Currently Amended) A packet fragmentation manager to manage packet

fragmentation for address translation, comprising:

        a collection module ~~for collecting and storing~~ to collect and store a plurality of

packet fragments for a packet having a first address, wherein each packet fragment

includes a packet fragment header having a packet offset value;

        a verification module ~~for verifying~~ to verify all packet fragments for said packet

have been received; and

        a translation module ~~for retrieving~~ to retrieve translation information from one of

said packet fragments and translating said first address into a second address using said

translation information, wherein said translation module is to determine whether all

packet fragments for said packet have been received using said offset value.

12.   (Currently Amended) The packet fragmentation manager of claim 11, further

comprising a communication module ~~for sending~~ to send said packet fragments to said

second address.

13.   (Currently Amended) A system to manage packet fragmentation for an address

translation device, comprising:

        a source node to send packet fragments for a packet having a first address; and

        an intermediate node to receive said packet fragments and translate said first

address to a second address without reassembling said packet fragments into said packet;

5

wherein said intermediate node is further adapted to use offset values from each packet fragment to determine whether all packet fragments for said packet have been received.

14.   (Original) The system of claim 13, further comprising a destination node having said second address to receive said packet fragments and reassemble said packet fragments into said packet.

15.   (Currently Amended) A system to manage packet fragmentation for an address translation device, comprising:

a computer platform adapted to manage packet fragmentation;

said platform being further adapted to receive a plurality of packet fragments for a packet having a first address, translate the first address into a second address without reassembling said packet fragments into said packet, and send said packet fragments using said second address;

wherein said platform is further adapted to use offset values from each packet fragment to determine whether all packet fragments for said packet have been received.

16.   (Original) The system of claim 15, wherein said platform is further adapted to perform said translation by identifying a packet fragment having a packet header, with said packet header having a packet identifier, translation information and a packet length, determining whether all packet fragments for said packet have been received, retrieving translation information from said packet header, and translating said first address into

Appl. No. 10/015,959
Response Dated November 1, 2004
Reply to Office Action of July 1, 2004

said second address using said translation information.

17.   (Currently Amended) The system of claim 15, wherein said platform is further adapted to ~~use offset values from each packet fragment to determine whether all packet fragments for said packet have been received by collecting said offset values, retrieving~~ retrieve a packet length for said packet, and ~~determining~~ determine whether all positions for said packet are filled by said collected offset values using said packet length.

18.   (Currently Amended) An article comprising:

a storage medium;

said storage medium including stored instructions that, when executed by a processor, result in receiving a plurality of packet fragments for a packet having a first address, translating said first address into a second address without reassembling said packet fragments into said packet, and sending said packet fragments using said second address;

wherein the stored instructions, when executed by a processor, further result in using offset values from each packet fragment to determine whether all packet fragments for said packet have been received.

19.   (Original) The article of claim 18, wherein the stored instructions, when executed by a processor, further result in said translating by identifying a packet fragment having a packet header, with said packet header having a packet identifier, translation information and a packet length, determining whether all packet fragments for said packet have been

7

received, retrieving translation information from said packet header, and translating said first address into said second address using said translation information.

20.   (Currently Amended) The article of claim 19, wherein the stored instructions, when executed by a processor, further result in ~~using offset values from each packet fragment to determine whether all packet fragments for said packet have been received by~~ collecting said offset values, retrieving a packet length for said packet, and determining whether all positions for said packet are filled by said collected offset values using said packet length.

21.   (Original) The article of claim 18, wherein the stored instructions, when executed by a processor, further result in detecting an occurrence of a terminating condition prior to receiving all of said packet fragments for said packet, and releasing said packet fragments in accordance with said detection.